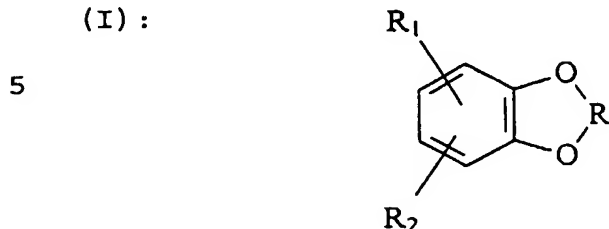


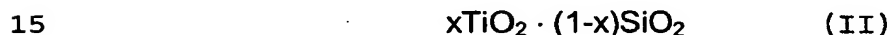
CLAIMS

1. A process for the hydroxylation of aromatic compounds containing a heterocyclic system having general formula (I):



(I)

wherein R represents a C<sub>1</sub>-C<sub>4</sub> (iso)alkylene radical, whereas  
 10 R<sub>1</sub> and R<sub>2</sub>, the same or different, represent a hydrogen atom or a CH<sub>3</sub> radical, or a C<sub>1</sub>-C<sub>2</sub> alkoxy, which comprises directly hydroxylating said compounds having general formula (I) with H<sub>2</sub>O<sub>2</sub> in the presence of a zeolitic catalyst having general formula (II):



wherein x is a number ranging from 0.0001 to 0.04, preferably from 0.01 to 0.025.

2. The process according to claim 1, wherein the zeolitic catalyst is used with a particle size ranging from 1 to  
 20 1000 μm, preferably from 5 to 100 μm, or in the form of pellets.

3. The process according to claim 1 or 2, wherein in the product having general formula (I), R is a methylene radical whereas R<sub>1</sub> and R<sub>2</sub> are two hydrogen atoms.

25 4. The process according to any of the previous claims,

wherein the hydroxylation reaction is carried out in the presence of one or more solvents or directly in mass by feeding hydrogen peroxide, optionally diluted with H<sub>2</sub>O, to a suspension of catalyst in the substrate.

5 5. The process according to claim 4, wherein the solvent is selected from:

- aliphatic alcohols, in particular C<sub>1</sub>-C<sub>10</sub> linear, branched or cyclic alcohols;
- linear, branched or cyclic aliphatic ketones, with a  
10 number of carbon atoms ranging from 3 to 12;
- linear, branched or cyclic saturated aliphatic hydrocarbons with a number of carbon atoms ranging from 5 to 12;
- esters selected from dialkyl carbonates wherein the  
15 alkyl group contains from 1 to 4 carbon atoms, and esters of carboxylic acid having the formula CH<sub>3</sub>-COO-R' wherein R' represents a C<sub>1</sub>-C<sub>4</sub> radical;
- linear, branched or cyclic aliphatic ethers, with a number of carbon atoms ranging from 3 to 12;
- 20 - aliphatic nitriles having the formula R"-CN, wherein R" represents a C<sub>1</sub>-C<sub>4</sub> alkyl radical.

6. The process according to any of the previous claims, wherein the catalyst is used in batch reactions, in concentrations, with respect to the substrate, ranging from 1 to  
25 50% by weight.

7. The process according to any of the claims from 1 to 5, wherein the reaction is carried out in continuous, feeding hydrogen peroxide and the substrate on a layer of catalyst or by passing the reagents through a fixed bed of catalyst in the form of pellets.

8. The process according to any of the previous claims, wherein the  $\text{H}_2\text{O}_2$  reagent is used in an aqueous solution with concentrations ranging from 1 to 60% by weight.

9. The process according to any of the previous claims, wherein the molar ratio  $\text{H}_2\text{O}_2$ /substrate varies from 0.01 to 0.5, preferably from 0.1 to 0.3.

10. The process according to any of the previous claims, wherein the oxidation reaction is carried out at a temperature ranging from 10 to 100°C, preferably from 40 to 80°C.

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